AMENDMENTS TO THE CLAIMS

1. (currently amended): A process for producing an aldehyde derivative of a reducing terminal sialic acid ~~in which a starting material which is~~ of a di-, oligo- or poly-saccharide ~~having a sialic acid unit at the reducing terminal and a terminal saccharide at the~~ that has a non-reducing ~~end which has~~ terminal saccharide that contains a vicinal diol group, ~~is subjected to the sequential steps of~~ which process comprises:

a) ~~preliminary selective oxidation to oxidise the~~ oxidizing said vicinal diol group of the non-reducing terminal saccharide to an aldehyde;

b) ~~reduction to reductively open the ring at the~~ reducing the reducing terminal sialic acid unit and the aldehyde formed in a) to effect ring opening of the reducing terminal sialic acid, whereby a vicinal diol group is formed**[[**,**]]** at the reducing terminal sialic acid and ~~wherein~~ the aldehyde formed in step a) is also reduced to ~~form~~ a hydroxy group ~~which is not part of a vicinal diol group~~; and

c) ~~selective oxidation to oxidise~~ oxidizing the vicinal diol group formed in step b) ~~to form~~ to obtain a product comprising an aldehyde ~~group~~ at the reducing terminal.

2. (currently amended): ~~A process according to~~ The process of claim 1 ~~in which the sialic acid unit at~~ wherein the reducing terminal is sialic acid joined to the ~~adjacent sialic acid unit~~ saccharide through the 8 carbon atom ~~whereby in step b) the 6,7 vicinal diol group is oxidised to form an aldehyde on the carbon-7 atom~~.

3. (currently amended): ~~A process according to~~ The process of claim 1 ~~in which~~ wherein the saccharide unit at the non-reducing end is a sialic acid unit.

4. (canceled)

5. (currently amended): ~~A process according to~~ The process of claim 1 ~~in which~~ wherein the polysaccharide is a polysialic acid consisting ~~substantially only of units~~ of sialic acid units.

6. (currently amended): ~~A process according to~~ The process of claim 5 ~~in which~~ wherein the polysaccharide has at least 5 sialic acid units.

7. (currently amended): ~~A process according to~~ The process of claim 1 ~~in which the said preliminary selective oxidation~~ wherein step a) is carried out under conditions ~~such that there is substantially no~~ that do not result in mid-chain cleavage of the polysaccharide.

8. (currently amended): ~~A process according to~~ The process of claim 7 ~~in which the said preliminary selective oxidation~~ wherein step a) is carried out in aqueous solution in the presence of periodate at a concentration in the range 1mM to 1M, a pH in the range 3 to 10, a temperature in the range 0 to 60°C and a time in the range 1 min to 48 hours.

9. (currently amended): ~~A process according to~~ The process of claim 1 ~~in which~~ wherein step b) is carried out under conditions such that pendent carboxyl groups on the starting material are not reduced.

10. (currently amended): ~~A process according to~~ The process of claim 9 in which step b) is carried out in aqueous solution in the presence of borohydride at a concentration in the range 1μM to 0.1M, a pH in the range 6.5 to 10, a temperature in the range 0 to 60°C and a period in the range 1 min to 48 h.

11. (currently amended): **[[**A**]]** The process ~~for producing a derivatised substrate in which the process~~ of claim 1 which further comprises ~~is carried out and then the said aldehyde derivative is reacted~~ reacting the product of step c) with a substrate having a primary amine group or a hydrazide group whereby the aldehyde group reacts with the primary amine or hydrazide group to form a conjugate product, comprising a C=N bond.

12. (currently amended): ~~A process according to~~ The process of claim 11 ~~in which the product is reduced~~ which further comprises reducing the C=N bond to a C—N bond.

13. (currently amended): ~~A process according to~~ The process of claim 11 ~~in which~~ wherein the substrate is a peptide or a protein.

14. (currently amended): ~~A process according to~~ The process of claim 13 ~~in which~~ wherein the substrate is a peptide therapeutic.

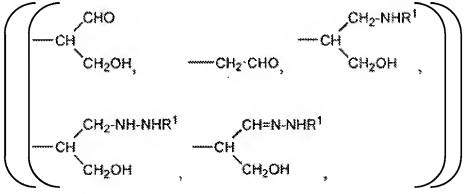
15. (currently amended): ~~A process according to~~ The process of claim 11 ~~in which~~ wherein the substrate ~~is a compound having a~~ comprises an additional functional group ~~substituent and a dibasic organic group joining~~ linked through a divalent linker to the amine or hydrazide group ~~and the functional group~~.

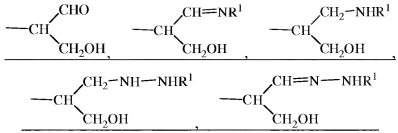
16. (canceled)

17. (currently amended): ~~A process according to~~ The process of claim 11 ~~in which~~ wherein the substrate is a drug delivery system, a cell, a virus or a synthetic polymer.

18. (currently amended): A ~~compound which is an aldehyde~~ derivative of a di-, oligo or polysaccharide ~~comprising at least one sialic acid unit, and having two terminal units corresponding to the reducing and non-reducing terminal units of a polysaccharide in which the terminal unit at the reducing end includes an aldehyde moiety or is a group OR, in which R is selected from~~ having a sialic acid residue at the reducing terminus,

wherein said sialic acid at the reducing terminus has been converted to OX wherein X is

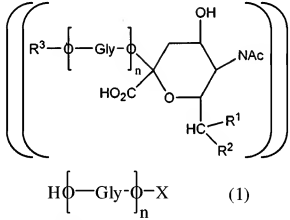




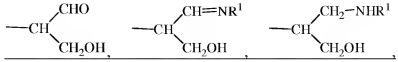
CH_2CHO, CH_2CHNR^1, $-CH_2CH_2NHR^1$, $CH_2CH=N\text{-}NHR^1$ **[[**and**]]** or $CH_2CH_2NHNHR^1$ in which R^1 is H, $C_{1\text{-}24}$-alkyl, aryl $C_{2\text{-}6}$-alkanoyl, or a polypeptide or a protein linked through the N terminal or the γ-amine group of a lysine residue thereof, a drug delivery system or is an organic group having a functional substituent adapted for reaction with a sulfhydryl group, and **[[**which**]]**

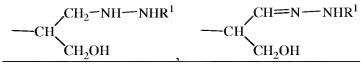
wherein said di-, oligo-, or polysaccharide has a passivated unit at the non-reducing terminal unit.

19. (currently amended): ~~A compound according to~~ The compound of claim 18 ~~which has general~~ of the formula **[[I]]**



~~in which R^3 is H and R^4 is OH~~ wherein n is 1 or an integer, each GlyO is a glycosyl group which may be the same or different, ~~n is an integer of 1 or more and R is as defined in claim 18~~ and X is





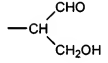
CH_2CHO, CH_2CHNR^1, $-CH_2CH_2NHR^1$, $CH_2CH=N-NHR^1$ or $CH_2CH_2NHNHR^1$ wherein R^1 is as defined in claim 18.

20. (currently amended): ~~A compound according to~~ The compound of claim 19 ~~in which~~ wherein substantially all the GlyO groups are sialic acid groups, joined 2-8, 2-9 or alternating 2-8/2-9, to one another.

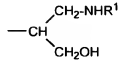
21. (currently amended): ~~A compound according to~~ The compound of claim 20 ~~in which~~ wherein n is at least 5.

22. (currently amended): ~~A compound according to~~ The compound of claim 18 ~~in which~~ wherein R^1 is a protein or peptide or a drug delivery system.

23. (currently amended): ~~A compound according to~~ The compound of claim 18 ~~in which R~~ wherein X is



24. (currently amended): ~~A compound according to~~ The compound of claim 18 ~~in which R~~ wherein X is



25. (currently amended): ~~A compound according to~~ The compound of claim 21 or claim 24 ~~in which~~ wherein R^1 is a peptide or protein therapeutic.

26. (currently amended): ~~A compound according to~~ The compound of claim 18 ~~in which~~ wherein R^1 is ~~a group~~

~~in which~~ wherein R^2 is a ~~C_{2-12} alkanediyl~~ C_{2-12}-alkylene group.

27. (currently amended): A composition comprising a compound ~~according to~~ of claim 18 and a diluent.

28. (currently amended): A pharmaceutical composition comprising a compound ~~according to~~ of claim 21 or claim 25 and a pharmaceutically acceptable excipient.